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Exercise Sweeper 2017

EOC-centric

Radio Linking and Connectivity Exercise

May 03, 2017 (0930 to 1530)

MIECM

ES2017

V3.5 dated April 13, 2017

Governing Body for EX

- ES2017 is being designed and delivered by the Mid Island Emergency Radio Coordinators Team (MIERCT) which is a sub-committee of the Mid Island Emergency Coordinators and Managers Committee (MIECM).
- MIECM / MIERCT are responsible for all EX design content

ES 2017 Disclaimer

- ES2017 is ***not*** a 'concept of operations' EX.
- Amateur radio operators embedded with local authorities participating in the EX will communicate directly with destinations they might not normally have contact with in a real event. This is being done to add traffic volume and provide all parties with a more robust training experience.

Lessons Learned from ECR IF

- Initial Findings from Exercise Coastal Response (ECR) highlighted issues related to the operational methodologies, efficiencies and related effectiveness of the amateur radio service. The most meaningful items are:
- **#101**: Amateur radio voice and digital message procedure needs to be updated and standardized
- **#102**: There is a wide variance in the understanding of (amateur radio) and its capabilities
- **#106**: EOC's lack robust fixed and deployable communication functions
- **#108**: Use of Winlink Express (as an amateur radio messaging client to support EOC's) had incorrect addressing for messages
- **#115**: There is no current listing of amateur radio stations (in some areas)

EX Background and Objective

- ES2017 will be based on an earthquake scenario
- ES2017 is inspired by the Initial Findings from the (2016) Exercise Coastal Response
- ES2017 will focus on amateur radio communications between EOC's on Vancouver Island and beyond
- While broad in scope, the EX vision is aimed at addressing the following two objectives:
  - Amateur radio operators embedded within local jurisdictions need more opportunity to work the EOC staff
  - EOC staff need more exposure to the operational capabilities of their embedded amateur radio service

EX Focus

- ES2017 is an EOC-based radio connectivity EX
  - The EX is aimed at the working relationship between the Emergency Program Coordinator (EPC) and local jurisdiction radio communication groups. In many cases, no other EOC staff will be involved in the event.
  - Some jurisdictions will run a local EX within the scope of ES2017 and as such all planning will be at the discretion of the local authority

Operational Goals

- Attract interest from EPC / EOC in the catchment area
- Facilitate EOC-to-EOC, EOC-to-Net Control and EOC-to-PREOC communications via amateur radio
- Move large volume of voice / data traffic between locations
- Increase focus on timely end-to-end message cycles
- Utilize CAF aircraft during EX to pass Sitreps
- Support improvement of operational skills and capability for radio volunteers that often serve as community and EMBC resources.

Target Audience

- EOC's on Vancouver Island, Powell River, and within metro Vancouver
- PREOC's – Victoria and Kamloops
- CAF / JTFP for the movement of sitreps
- PNW-CBCG partners in northwestern WA-state with possible assistance from WA-state EMD and ARRL
- ES2017 is not intended to be a general call for convergent volunteer amateur radio operators. It will however utilize pre-designated home stations in each local jurisdiction to support established EOC radio operations.

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EXERCISE SWEEPER 2017
Port Hardy
Port McNeill
Winter Harbour
Coal Harbour
19
Campbell River
Courtenay
Vancouver Island
Tofino
Nanaimo
Whistler
Garibaldi Provincial Park
99
Vancouver
Burnaby
Richmond
Surrey
7
Abbotsford
Victoria
5
Everett
Olympic National Park
Seattle
Google
Participating EOC:
Net Control station:
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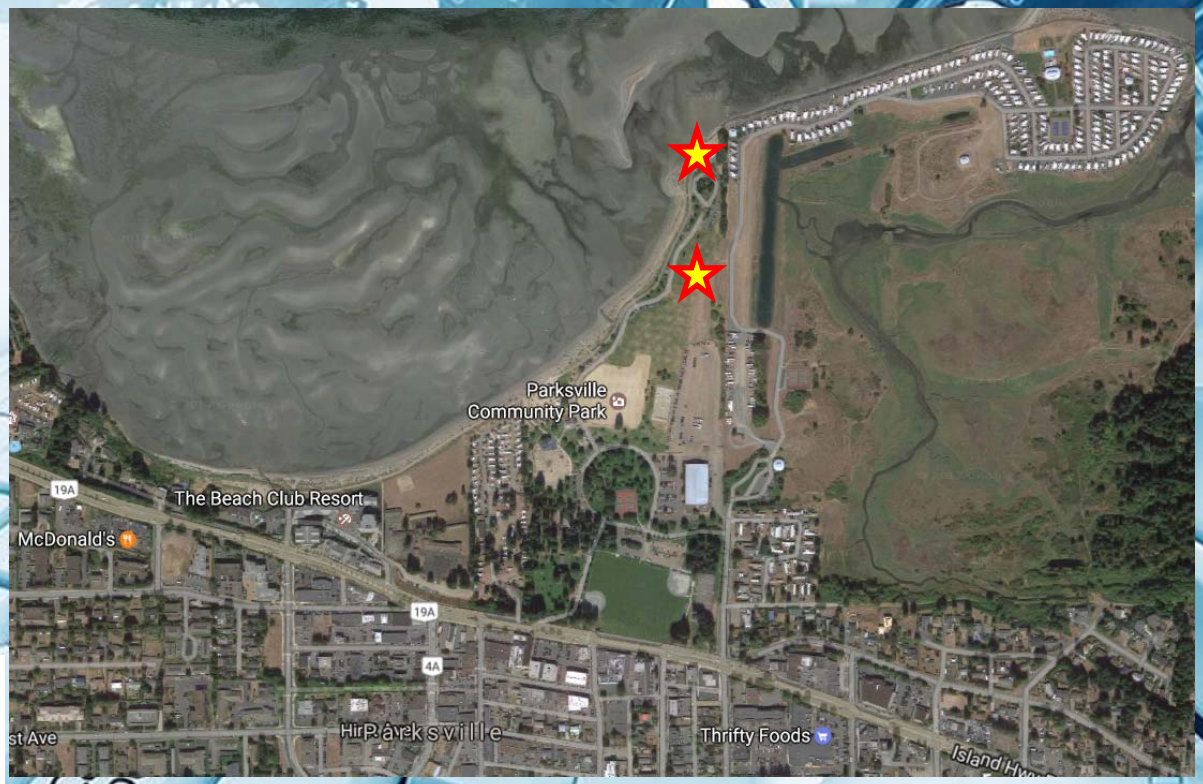
Net Control

- VE7PQD; the Oceanside Emergency Communications Team (OECT) and VE7CVA; the Cowichan Valley Amateur Radio Society (CVARS) will operate from the decommissioned CCG hovercraft pad on the beach in Parksville



Net Control site

- Flat open area
- Possible access to hydro power
- Good cell coverage
- Relatively quiet
- Limited number of neighbours
- Potential to realize ‘salt-water amp effect’ on both TX / RX if antennas are close enough to water

Net Control site

Net Control Information

- Net control will run voice and data simultaneously on relevant amateur HF bands – likely 40m and 80m, to ensure maximum throughput of traffic
- Fan dipole, low dipole and NVIS antenna to be used
- Fully operational on air from 0930 to 1530
- Will have an Internet connection in some form
- Will have 500w HF amplifier
- May utilize out-of-area RX antenna
- Will need logistical support to maintain operation

NET Control Activity

- Run several local (radio) test events prior to the EX
- Primary activity will be HF operation with the singular objective of having a good signal on both 40m and 80m
- At the start of the net, VE7PQD and VE7CVA will operate with one station on 40m and the other on 80m.
- Given band conditions on EX-day, this should give all stations an opportunity to be heard and check-in. Once voice checks are complete, a decision on band choice (for voice) will be made and one station will move to data.

NET Control Frequencies

- Net Control (**Voice**) will operate on:
  - 80m = 3.857MHz
  - 40m = 7.257MHz
  - 20m = 14.257MHz (may not be utilized)
- Net Control (**Pactor**)
  - 80m = 3592 / 40m = 7087 or 7107
  - ve7pqd@winlink.org and ve7cva@winlink.org
- Due to potential traffic volume, all stations should refrain from attempting a P2P connection with Net Control and use their nearest Winlink node to send and receive traffic.

EPC / EOC activity

- EPC's will create 12 messages on pre-defined forms
- EPC's and their radio teams will need to meet and create a local activity that allows them to realize EX objectives
- Not all participating EOC's will be active for the entire EX
- Local jurisdiction EPC's and Radio Coordinator **must** talk for the EX to be a success
- MIECM have identified EMBC forms to be converted for use with Winlink
- EPC / radio teams should run test events prior to the EX

Forms to be used by EPC & ECT

- MIECM have suggested the following forms be utilized by EOC's and sent by Winlink during the EX:
  1. Initial Impact Assessment Report (IIAR)
  2. Declaration of State of Local Emergency
  3. Resource Request
  4. EOC Expenditure Authorization Form
  5. Situation Report
- HTML forms conversion has been completed by Ed Gorse, VE7ED

Forms to be used by ECT

- In order to achieve a standardized approach to radio communications during the EX -- as well during the after action review of the event, the MIECM are suggesting the following set of forms be utilized by all locations:

  - EOC 551: Radio Station Log
  - EOC 552: ECT Net Control Communications Diagram
  - EOC 556: ECT Operator Status Report
  - ICS 213: Compliant Amateur Radio Message Form

EX Message Traffic to include

- Establishing ECT station connection with Net Control
- Establishing ECT connection with local authority EOC
- Establishing ECT/EOC connection with PREOC
- Establishing Net Control connection with Washington State
- EOCs to receive at least one update from the field with situational awareness
- PREOC sends out a blanket request for Initial Incident Assessment Report (IIAR) from each Local Authority EOC
- EOC's send one IIAR per local authority to PREOC
- EOC's send a Declaration of State of Local Emergency to PREOC a if appropriate for their location
- EOC's send 2 Resource Requests to 2 neighbouring EOCs (to be arranged so every EOC receives at least 2 Resource Requests
- EOC's respond to Resource Requests within 30 minutes of receipt
- EOC's send 2 Resource Requests to the PREOC
- PREOC sends approved/clarification needed response for Resource Requests to EOC's
- EOC's send 2 Expenditure Authorization Forms (EAF) to PREOC
- PREOC sends approved/clarification needed response for EAFs to EOC's
- PREOC requests SITREP for each activated EOC
- EOCs send 1 SITREP to PREOC

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CAF activity

- Utilize EMBC PEPEP1 VHF radio frequency for EX
- Provide information about potential tasking location, coverage opportunities / EOC catchment
- Participate in EX's during available time period
- Receive sitrep process from EOC's
- Pass collected EOC sitreps to either EMBC or *JTFP via VHF / UHF cross band military frequencies

*JTFP = Joint Task Force Pacific

EMBC activity

- Have radio operators available at PREOC's
- Determine which PREOC has the greatest probability for success on HF
- Test (voice) connectivity with ES2017 Net Control
- Respond in a timely manner to all traffic received at: ve7pep@winlink.org
- Test operational plan to improve throughput of radio traffic
- Participate in radio test events leading up to both EX's

ES2017 Outcome Expectations

- Given the scenario and each community's proximity to the earthquake epicentre, EPC's are encouraged to "play out" the scenario depending on their expectations for damages and issues in their communities
- EPC identifies resulting level of activation for the exercise.
- EPC/ECT members for each local authority determine ECT activation protocol in advance so that the exercise practices that protocol.
- EPC/ECT members determine how message precedence will be determined and become familiar with the terminology and expectations
- EOC's should prepare at least one handwritten form and several HTML entered forms to gain real operational experience with the forms.
- ECT members transmit forms to EOC/PREOC as specified.
- ECT members track all message traffic for their location.
- Net Control tracks all message traffic (may need scribes).

ES2017 Contact

- For EX details, please contact:

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Questions?